# Commonwealth of Kentucky Division for Air Quality

## PERMIT APPLICATION SUMMARY FORM

Completed by: Chris Leslie

| GENERAL INFORMATION:            |  |  |
|---------------------------------|--|--|
| Name:                           | Owensboro Grain Company, Inc.            |  |
| Address:                        | 719 East Second Street, Owensboro, KY    |  |
| Date application received:      | December 14, 1997                        |  |
| SIC/Source description:         | 2075/Soybean Oil Mill                    |  |
| EIS #:                          | 21-059-00039                             |  |
| AI #:                           | 938                                      |  |
| Application log number:         | D484/50023                               |  |
| Permit number:                  | V-08-006                                 |  |
| APPLICATION TYPE/PERMIT ACTIVIT | <u>'Y</u> :                              |  |
| [X] Initial issuance            | [ ] General permit                       |  |
| [ ] Permit modification         | [ ]Conditional major                     |  |
| Administrative                  | [X] Title V                              |  |
| Minor                           | [ ] Synthetic minor                      |  |
| Significant                     | [ ] Operating                            |  |
| [ ] Permit renewal              | [X] Construction/operating               |  |
| COMPLIANCE SUMMARY:             |  |  |
| [ ] Source is out of compliant  | nce [ ] Compliance schedule included     |  |
| [X] Compliance certification    | n signed                                 |  |
|                                 |  |  |
| APPLICABLE REQUIREMENTS LIST:   |  |  |
| NSR                             | [X] NSPS [X] SIP                         |  |
| [X] PSD                         | [] NESHAPS [] Other                      |  |
| Netted out of PSD/NSR           |  |  |
|                                 | or 51:052,1(14)(b)                       |  |
| Miscellaneous:                  |  |  |
| [ ] Acid rain source            |  |  |
| [ ] Source subject to 112(r)    |  |  |
|                                 | ally enforceable emissions cap           |  |
|                                 | or alternative operating scenarios       |  |
| [X] Source subject to a MAG     |  |  |
| <u> </u>                        | y-case 112(g) or (j) determination       |  |
| [ ] Application proposes nev    |  |  |
| [X] Certified by responsible    |  |  |
| [ ] Diagrams or drawings in     |  |  |
|                                 | Formation (CBI) submitted in application |  |
| Pollution Prevention Me         | * * * * * * * * * * * * * * * * * * *    |  |
| [ ] Area is non-attainment (    |  |  |
| [ ] Area is non-attainment ()   | nsi ponutants).                          |  |

## **EMISSIONS SUMMARY:**

| Pollutant       | Actual (tpy) | Potential (tpy) |
|-----------------|--------------|-----------------|
| PM              | 544.02       | 11,483.98       |
| $PM_{10}$       | 269.75       | 8611.21         |
| $\mathrm{SO}_2$ | 893.20       | 893.20          |
| NOx             | 291.35       | 291.35          |
| СО              | 145.09       | 145.09          |
| VOC             | 720.43       | 720.43          |
| Hexane          | 459.16       | 459.16          |

## SOURCE PROCESS DESCRIPTION:

Owensboro Grain Company, Inc. is a grain processing plant which produces crude vegetable oil. The source uses n-hexane to strip off the crude oil from the meal of the grain. The meal is sold after the oil has been removed and the oil is sent elsewhere to be refined into table oils, margarine, and other edible fats and oils.

#### EMISSION AND OPERATING CAPS DESCRIPTION:

The equipment listed under State Regulation 401 KAR 59:010, New process operations, applicable on or after July 2, 1975, have an opacity and mass emission limits resulting from the application of this regulation. As a result, the equipment controlled by 401 KAR 59:010, New process operations, will be required to use a filter or cyclone and be operated and maintained in accordance with the manufacturer's recommendations. Regulation 40 CFR 60, Subpart DD – Standards of Performance for Grain Elevators, also has opacity and emission standards.

The equipment listed under State Regulation 401 KAR 61:020, Existing process operations, applicable prior to July 2, 1975, have an opacity and mass emission limits resulting from the application of this regulation. As a result, the equipment controlled by 401 KAR 61:020, Existing process operations, will be required to use a filter and be operated and maintained in accordance with the manufacturer's recommendations. Regulation 40 CFR 60, Subpart DD – Standards of Performance for Grain Elevators, also has opacity and emission standards.

The equipment listed under State Regulation 401 KAR 63:010, Fugitive emissions, will be controlled, by utilizing wet suppression, enclosures, and/or dust collection equipment so as to keep particulate emissions from crossing the lot line of the property. Regulation 40 CFR 60, Subpart DD – Standards of Performance for Grain Elevators, also has opacity standards.

#### EMISSION AND OPERATING CAPS DESCRIPTION: (Continued)

The equipment listed under State Regulation 401 KAR 60:005, Standards of performance for new stationary sources, which incorporates by reference 40 CFR 60.250 (40 CFR Subpart Y), have an opacity limit resulting from the application of this regulation. The source also has a limit of 47,000 tons of coal processed in any 12 month period.

The equipment listed under State Regulation 401 KAR 59:015, New indirect heat exchangers, has emission limits on particulate matter, opacity, and sulfur dioxide. The coal burned also must have a heat content of at least 12,190 Btu/lb.

40 CFR 63, Subpart GGGG – National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production, limits the source to 0.2 gallons of hexane loss per ton of grain crushed. The source is also limited to crushing no more than 1,314,000 tons per year of grain.

The equipment listed under State Regulation 401 KAR 63:020, Potentially hazardous matter or toxic substances, limits the source to emitting potentially hazardous matter or toxic substances in such quantities or duration as to not be harmful to the health and welfare of humans, animals and plants.

### **OPERATIONAL FLEXIBILITY:**

The source has been limited to burning no more than 47,000 tons of coal per year. The source is also limited to emitting 1092.90 tons of hexane per year. A MACT standard also limits the source to 0.2 gallons of hexane lost per ton of grain crushed. Also, the source may crush no more than 1,314,000 tons of grain per year. Monthly records to demonstrate compliance with these limitations shall be maintained monthly and on a 12 month rolling average.